

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A beam irradiation apparatus comprising:

means for scanning an energy beam output continuously from one end to the other end on an irradiated object; and

means for controlling a position of the irradiated object so that the beam is irradiated to an outside of an element-forming region on the irradiated object in the one end and in the other end,

wherein the means for scanning has a specular body;

wherein the specular body is fixed to a shaft so as to be arranged on an optical axis of the beam; and

wherein the specular body vibrates using the shaft as its center.

2. (Original) A beam irradiation apparatus according to claim 1,

wherein the means for controlling the position of the irradiated object synchronizes with the means for scanning.

3. (Original) A beam irradiation apparatus according to claim 1,

wherein a plurality of beams are used.

4. (Original) A beam irradiation apparatus comprising:

means for scanning an energy beam output continuously on an irradiated object;

and

means for controlling a position of the irradiated object so that the beam is irradiated to an outside of an element-forming region on the irradiated object in positions where the beam starts to be scanned and where the beam ends to be scanned,

wherein the means for scanning has a specular body;

wherein the specular body is fixed to a shaft so as to be arranged on an optical axis of the beam; and

wherein the specular body rotates using the shaft as a center.

5. (Original) A beam irradiation apparatus according to claim 4,
wherein a plurality of beams are used.

6. (Original) A beam irradiation apparatus according to claim 1,
wherein the shaft has a supporting bar in one end or in opposite ends.

7. (Original) A beam irradiation apparatus according to claim 4,
wherein the shaft has a supporting bar in one end or in opposite ends.

8. (Original) A beam irradiation apparatus according to claim 1,
wherein one specular body is provided.

9. (Original) A beam irradiation apparatus according to claim 4,
wherein one specular body is provided.

10. (Original) A beam irradiation apparatus according to claim 1,
wherein means for moving the irradiated object and the beam relatively is provided.

11. (Original) A beam irradiation apparatus according to claim 4,

wherein means for moving the irradiated object and the beam relatively is provided.

12. (Original) A beam irradiation apparatus according to claim 10,
wherein the means for moving has a control apparatus for controlling so as to move in synchronization with the means for scanning.

13. (Original) A beam irradiation apparatus according to claim 11,
wherein the means for moving has a control apparatus for controlling so as to move in synchronization with the means for scanning.

14. (Original) A beam irradiation apparatus according to claim 1,
wherein the energy beam output continuously is a beam emitted from a laser selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃ laser, and an Ar laser.

15. (Original) A beam irradiation apparatus according to claim 4,
wherein the energy beam output continuously is a beam emitted from a laser selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃ laser, and an Ar laser.

16. (Original) A beam irradiation apparatus according to claim 1,
wherein an optical system for shaping the energy beam output continuously into linear is provided between an oscillator of the beam and the means for scanning.

17. (Original) A beam irradiation apparatus according to claim 4,
wherein an optical system for shaping the energy beam output continuously into linear is provided between an oscillator of the beam and the means for scanning.

18. (Original) A beam irradiation apparatus according to claim 1,
wherein an $f\theta$ lens is provided between the means for scanning and the
irradiated object.

19. (Original) A beam irradiation apparatus according to claim 4,
wherein an $f\theta$ lens is provided between the means for scanning and the
irradiated object.

20. (Original) A beam irradiation apparatus according to claim 1,
wherein a telecentric $f\theta$ lens is provided between the means for scanning and the
irradiated object.

21. (Original) A beam irradiation apparatus according to claim 4,
wherein a telecentric $f\theta$ lens is provided between the means for scanning and the
irradiated object.

22. (Original) A beam irradiation apparatus according to claim 1,
wherein the specular body has a plane surface or a curved surface.

23. (Original) A beam irradiation apparatus according to claim 4,
wherein the specular body has a plane surface or a curved surface.

24. (Original) A beam irradiation method comprising:
irradiating while scanning an energy beam output continuously to an irradiated
object,
wherein a scanning direction of the beam changes outside an element-forming
region with the irradiated object formed.

25. (Original) A beam irradiation method comprising:

irradiating while scanning an energy beam output continuously to an irradiated object,

wherein the beam is irradiated to an outside of an element-forming region with the irradiated object formed in positions where the beam starts to be irradiated and where the beam ends to be irradiated.

26. (Original) A beam irradiation method comprising:

irradiating while scanning an energy beam output continuously and an irradiated object relatively,

wherein the irradiated object is processed by reflecting the beam on a plurality of specular bodies;

wherein relative positions of the energy beam and the irradiated object are controlled for every surface of the plurality of the specular bodies; and

wherein the beam is irradiated to an outside of an element-forming region with the irradiated object formed in positions where the beam starts to be irradiated and where the beam ends to be irradiated.

27. (Original) A beam irradiation method according to claim 24,

wherein the means for scanning has a galvanometer mirror or a polygon mirror.

28. (Original) A beam irradiation method according to claim 25,

wherein the means for scanning has a galvanometer mirror or a polygon mirror.

29. (Original) A beam irradiation method according to claim 26,

wherein the means for scanning has a galvanometer mirror or a polygon mirror.

30. (Original) A beam irradiation method according to claim 24,
wherein the energy beam output continuously is a beam emitted from a laser
selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃
laser, and an Ar laser.

31. (Original) A beam irradiation method according to claim 25,
wherein the energy beam output continuously is a beam emitted from a laser
selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃
laser, and an Ar laser.

32. (Original) A beam irradiation method according to claim 26,
wherein the energy beam output continuously is a beam emitted from a laser
selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃
laser, and an Ar laser.

33. (Original) A method for manufacturing a thin film transistor comprising the
steps of:

forming a crystalline semiconductor film by irradiating an energy beam output
continuously while scanning the energy beam to a semiconductor film;

forming a gate electrode over the crystalline semiconductor film; and

forming an impurity region in the crystalline semiconductor film using the gate
electrode as a mask,

wherein a scanning direction of the beam changes outside an element-forming
region with the semiconductor film formed.

34. (Original) A method for manufacturing a thin film transistor comprising the
steps of:

forming a crystalline semiconductor film by irradiating an energy beam output continuously while scanning the energy beam to a semiconductor film;

forming a gate electrode over the crystalline semiconductor film; and

forming an impurity region in the crystalline semiconductor film using the gate electrode as a mask,

wherein the beam is irradiated to an outside of the element-forming region with the semiconductor film formed in positions where the beam starts to be irradiated and where the beam ends to be irradiated.

35. (Original) A method for manufacturing a thin film transistor according to claim 33,

wherein the means for scanning has a galvanometer mirror or a polygon mirror.

36. (Original) A method for manufacturing a thin film transistor according to claim 34,

wherein the means for scanning has a galvanometer mirror or a polygon mirror.

37. (Original) A method for manufacturing a thin film transistor according to claim 33,

wherein the energy beam output continuously is a beam emitted from a laser selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃ laser, and an Ar laser.

38. (Original) A method for manufacturing a thin film transistor according to claim 34,

wherein the energy beam output continuously is a beam emitted from a laser selected from the group consisting of a YVO₄ laser, a YAG laser, a YLF laser, a YAlO₃ laser, and an Ar laser.

39. (Original) A method for manufacturing a thin film transistor according to claim 33,

wherein the element-forming region is a region where a display device or an integrated circuit is formed.

40. (Original) A method for manufacturing a thin film transistor according to claim 34,

wherein the element-forming region is a region where a display device or an integrated circuit is formed.

41. (Original) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film over a substrate;

crystallizing the semiconductor film by irradiating an energy beam output continuously while scanning the energy beam to the semiconductor film;

forming a plurality of semiconductor islands by patterning the crystallized semiconductor film;

forming a first circuit using one of the plurality of semiconductor islands over the substrate as an active layer; and

forming a second circuit using another one of the plurality of semiconductor islands over the substrate as the active layer,

wherein a region irradiated while changing a scanning direction of the energy beam when crystallizing the semiconductor film by the energy beam is not included in the semiconductor islands constituting the first circuit and the second circuit.

42. (Original) A method for manufacturing a semiconductor device according to claim 41,

wherein the region irradiated while changing the scanning direction of the energy beam is positioned between the first circuit and the second circuit.

43. (Original) A method for manufacturing a semiconductor device according to claim 41,

wherein the first circuit includes a first active matrix circuit; and

wherein the second circuit includes a second active matrix circuit.

44. (Original) A method for manufacturing a semiconductor device according to claim 41,

wherein the first circuit includes a first active matrix circuit; and

wherein the second circuit includes a driver circuit for driving the active matrix circuit.

45. (New) A method for manufacturing a semiconductor device according to claim 33,

wherein the semiconductor device is incorporated into at least one selected from the group consisting of a display, a mobile computer, a game machine, and an electronic book reader.

46. (New) A method for manufacturing a semiconductor device according to claim 34,

wherein the semiconductor device is incorporated into at least one selected from the group consisting of a display, a mobile computer, a game machine, and an electronic book reader.

47. (New) A method for manufacturing a semiconductor device according to claim 41,

wherein the semiconductor device is incorporated into at least one selected from the group consisting of a display, a mobile computer, a game machine, and an electronic book reader.